

PATENT ABSTRACTS OF JAPAN

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(21)Application number : 09-326231

(71)Applicant : **TETRA LAVAL HOLDINGS & FINANCE SA**

(22)Date of filing : 27.11.1997

(72)Inventor : **BUESING JONATHAN P**

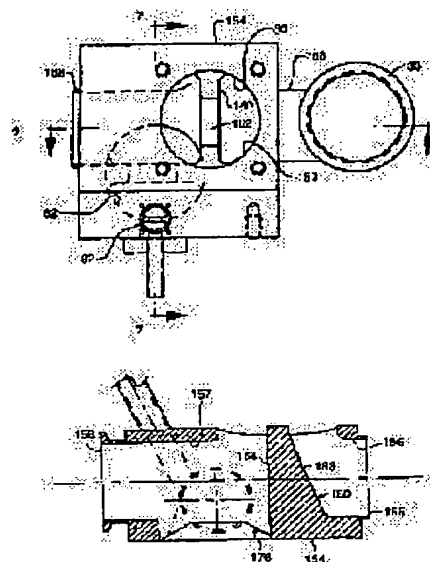
(30)Priority

Priority number : 97 926312

Priority date : 05.09.1997

Priority country : US

(54) STERILE VALVE ASSEMBLY



(57)Abstract:

PROBLEM TO BE SOLVED: To prevent generation of a stagnant region having poor exhaust by providing with a non-stagnant surface for self discharging a second surface of a second dam, in a diaphragm valve main body having a surface for delimiting a first dam for separating a first opening from a second opening, and a second dam for separating a third opening from the second opening.

SOLUTION: A first opening 155 for delimiting an inlet passage 156 and a second opening 158 for delimiting an outlet passage 157 are arranged coaxially with a valve main body of a sterile valve assembly main body for feeding a fluid food to a package machine, and a diaphragm opening 159 is formed in a direction perpendicular to its axis. The inlet 156 and the outlet 158 are separated from each other by a dam 160 having a seat 162 opposed to the diaphragm opening 159. A third outlet for delimiting an outlet passage and a diaphragm opening 82 are

arranged on the valve main body 154, and the second outlet 157 and the third outlet are separated from each other by a dam provided with the same seat. Respective diaphragm openings 159, 82 are opened/ closed by a diaphragm valve, and a flow passage is switched.

PATENT ABSTRACTS OF JAPAN

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(43)Date of publication of application : 28.02.1995

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B29D 23/00

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(21)Application number : 05-203128

(71)Applicant : DAIKYO SEIKO:KK

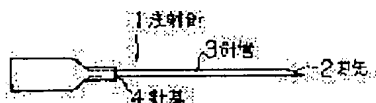
(22)Date of filing : 17.08.1993

(72)Inventor : SUDOU MORIAKI

(54) INJECTION NEEDLE AND ITS PRODUCTION METHOD

(57)Abstract:

PURPOSE: To obtain an injection needle made of a synthetic resin material with hygienic, physical and chemical properties substitutable for a metallic needle and friendly to environment in disposal, by forming an injection needle using a synthetic resin composition with a specific value of Rockwell hardness (M method).



CONSTITUTION: This injection needle is formed from a synthetic resin composition with a Rockwell hardness (M method) of 65 or higher. Here, the synthetic resin shall have a modulus of bending elasticity of 20,000kg/cm² or higher. The synthetic resin composition shall contain one or more selected from a group consisting of polyethersulfone, polysulfone, polyamideimide, polyetherimide, polyimide, polycarbonate, polyester, polyamide, polypropylene, polyarylate, polymethylpentene, modified (polyphenylene oxide) and liquid crystal polyester. Thus, a thin and

sharp needle substitutable for a stainless steel can be realized.

PATENT ABSTRACTS OF JAPAN(11)Publication number : **06-327772**(43)Date of publication of application : **29.11.1994**

(51)Int. Cl.

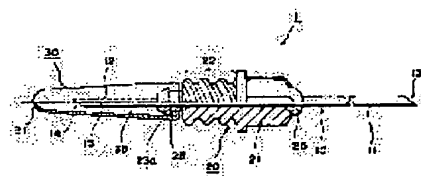
A61M 5/32(21)Application number : **06-078104**(71)Applicant : **TERUMO CORP
TONEN CHEM CORP**(22)Date of filing : **23.03.1994**(72)Inventor : **KASAI MASAOKI
YOSHIKAWA MAKOTO
IMAI YOICHI
ICHIKAWA KAZUHIRO**

(30)Priority

Priority number : **05 62330** Priority date : **23.03.1993** Priority country : **JP****(54) PLASTIC CANNULA AND ITS PRODUCTION**

(57)Abstract:

PURPOSE: To provide the plastic cannula which has a high strength and high modulus of bending and good surface characteristics, permits easy piercing of a rubber plug, etc., of a blood collecting tube, does not damage biotissues at the time of piercing the cannula into these tissues, has excellent moldability and is suitable for extrusion molding.



CONSTITUTION: A blood collecting needle 1 has the plastic cannula 10, a hub fixed thereto and a cap 30 enclosing the rubber plug piercing part 12 of the cannula 10. The cannula 10 is composed of a synthetic resin mainly consisting of polyphenylene sulfide(PPS) and more particularly the high-molecular linear type PPS. Blade surfaces 13, 14 are respectively formed on the blade edges at both ends of the cannula 10.

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Detailed Description of the Invention:**[0009]**

As materials to be used for this plastic cannula, polycarbonate (PC), polyester, acrylate, polyaramide, polyamide (PA), polyether ether ketone (PEEK), modified phenyleneoxide, polyetherimide (PEI), polymethylpentene and polysulfone are cited.